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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/421,870	10/26/1999	MARK O. WORTHINGTON	BURST-3-CIP2	4705

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EXAMINER
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MARSCHER, ARDIN H

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 01/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/421,870

Applicant(s)

WORTHINGTON, MARK O.

Examiner

Ardin Marschel

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 November 2002 and 11 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-211 is/are pending in the application.
- 4a) Of the above claim(s) 13-18, 25, 63-66, 75-77, 83-155, 162-177 and 187-211 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 19-24, 26-62, 67-74, 78-82, 156-161 and 178-186 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-211 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/11/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) 4 sheets
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 114104
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

Applicant's election of Group I, Specie A, in the Paper, filed 11/13/02, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Specie A embodiments within Group I are contained in claims 1-12, 19-24, 26-62, 67-74, 78-82, and 156-161 which are generic to both Species A and B. Claims 178, 182, and 186 also contain Specie A due to depending from generic claim 156, however, also clearly containing Specie B due to optionally depending from claim 177. Claims 179-181 and 183-185 depend directly or indirectly from either of claims 178 or 182 therefore also containing embodiments directed to elected specie A. Thus, examination has been directed to instant claims 1-12, 19-24, 26-62, 67-74, 78-82, 156-161, and 178-186; but limited to consideration of Specie A embodiments therein.

The identification of potential subgroups within the above elected Group I, Specie A, is acknowledged as set forth in said Paper, filed 11/13/02. No further election requirement, however, is presently directed to such subgroups.

### **PRIORITY CLAIM**

If applicant desires priority under 35 U.S.C. 120 based upon a previously filed application, specific reference to the earlier filed application must be made in the instant application. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications. It is noted that this appears as the first sentence of the

specification following the title. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No. \_\_\_\_\_" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

### **DRAWINGS**

Reconsideration of the Drawings, filed 8/11/03, has resulted in their approval. No further Drawing correction is needed at this time.

### **SEQUENCE RULE NON-COMPLIANCE**

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR §§1.821(a)(1) and (a)(2). See, for example, 3(three) sequences set forth in Figure 36 as well as in the specification on pages 89 and 90. However, this application fails to comply with the requirements of 37 CFR §§ 1.821 through 1.825 because it lacks any submission of a computer readable form sequence listing, a paper copy for the specification, a statements under 37 CFR §§ 1.821(f) and (g), and SEQ ID Nos. cited along with each sequence in the specification or Figures. Applicants are also reminded that SEQ ID Nos. are not required in Figures per se, however, the corresponding SEQ ID Nos. then are required in the Brief Description of the Drawings section in the specification. Applicants are also reminded that a CD-ROM sequence listing submission may replace the paper and computer readable form sequence listing copies. Applicant(s) are given the same response time regarding this failure to comply as that

set forth to respond to this office action. Failure to respond to this requirement may result in abandonment of the instant application or a notice of a failure to fully respond to this Office action.

### **VAGUENESS AND INDEFINITENESS**

Claims 1-12, 19-24, 26-62, 67-74, 78-82, 156-161, and 178-186 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9, line 1, recites the phrase "of any one of claim 6". This causes the claim to be vague and indefinite because this phrase is internally inconsistent as to what is meant thereby. The phrase "of any one" is indicative that "one" is chosen from a plurality of options due to the recitation of the word "any" therein. Then, confusingly, only one claim that being "claim 6" is listed regarding possible choice(s). Is there an intent that more than one claim besides claim 6 be selectable? Clarification via clearer claim wording is requested.

Claim 1 cites an optical disc with a patterned surface and an additional surface. In the last 3 lines of claim 1 the patterned surface is described as being presented "laser-proximal to said substrate additional surface". This phrase causes the claim to be vague and indefinite as to what is meant regarding the positional cooperativity between the patterned surface and the substrate additional surface. One possible interpretation is that the patterned surface is closer to a laser than the substrate additional surface. Another interpretation is that the patterned surface causes the substrate additional

surface to be near to a laser. Yet another interpretation is that the patterned surface is near to a laser whereas the substrate additional surface is undefined compared to its position being near to the laser or, alternatively, near to the patterned surface. The metes and bounds of the patterned surface vs. the substrate additional surface therefore are vague and indefinite. Claims 34, 78, 79, and 156 also contain this unclarity. It is noted that claims 3 and 5 indicate a positional relationship between an operational structure and the substrate additional surface but do not remove the unclarity as described above regarding the patterned surface vs. the substrate additional surface positioning. Claims 19, 26, and 27 also further contain similar wording that is unclear regarding the positional relationship between a nonoperational structure and a reflective layer. Claims 22 and 49 also cite several layers without defining the structural cooperativity relationship between them. It is noted that claim 22 only defines concurrent readability between a nonoperational structure and a trackable structure but does not define the positional relationship to the information layer per se. Claims which depend directly or indirectly from claims 1, 22, 38, 49, 78, 79, or 156 are also vague and indefinite due to their dependence. Clarification via clearer claim wording is requested.

Claims 30-32 contain abbreviations which cause these claims to be vague and indefinite due to lacking the full names therewith. The amending of the claims to include full names may be present in parentheses after such abbreviations. Such amending would overcome this rejection. For example, see HF, TE, and FE. Clarification via clearer claim wording is requested.

Claim 60 cites the phrase "said reflective layer and semireflective layer" which lacks clear antecedent basis to a previously cited semireflective layer if the claim intends that the limitation "said" applies both to the reflective layer as well as to the semireflective layer. It is noted, however, that an additional unclarity is whether the word "said" does or does not apply to characterizing both layers. Clarification via clearer claim wording is requested.

### **PRIOR ART**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-12, 19-24, 26-34, 38, 39, 48-50, 58, 61, 62, 67-74, 78-82, 156-161, and 178 are rejected under 35 U.S.C. 102(e)(2) as being clearly anticipated by DeCusatis et al. (P/N 5,872,723).

In the abstract, DeCusatis et al. discloses the practice of a system which contains a laser beam and reference track system for recording information on a CD-ROM, or similar device, which is also the subject matter area of the instant invention. It is noted that the invention of DeCusatis et al. includes optical dithering as a major principle as set forth in column 3, lines 15-18, but that this additional inventive concept in the reference does not negate the presence of descriptions which are anticipatory of



the instant invention as described below. Operational structures on a recording disk are depicted in Figures 2C – 2G which also shows a patterned surface as required in instant claim 1 as well as another surface or surfaces which anticipate the substrate additional surface as instantly claimed. Tracks on a recording disk are shown in Figures 5A and 5B. In the section entitled “SUMMARY OF THE INVENTION” in column 3, lines 15-32, the reference discloses trackable spiral tracks with edges (structures) corresponding to the operational and optically trackable structures as shown in said Figures. Another disclosure of information track patterns and specifically information storage on a disk of the reference is set forth in column 9, lines 9-50. The “laser-proximal” claim wording regarding various structures of the instantly claimed optical disc structure has been described above as being vague and indefinite. In any case, whatever is meant in the instant claims by this phrase, the reference discloses laser scanning from both sides of the disc thus making any possible interpretation as to what is meant by “laser-proximal” anticipated. See specific depictions of such laser scanning and therefore “laser-proximal” in the reference in Figures 15 and 18, for example, with related discussion in the reference. Therefore, the reference clearly anticipates instant claim 1. Figure 2C – 2E of the reference clearly discloses the limitations of instant claims 2, 3, 78-82, and 157 regarding imaging as well as most distal or most proximal (instant claim 5) location of several substrate additional surface(s) depending on which layer is designated therein. Figures 2F and 2G show disclosure of negative relief of the forward images described above due to layering over the forward imaging such that the overlaying has negative relief as required in instant claims 4, 79-82, 158, and 159. A wobble



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structure to tracks or grooves as operational for wobble determination is disclosed in column 30, lines 59-65, as also required in instant claims 6, 58, and 161. The structure which is readable for said wobble determination is reasonably interpreted also as a nonoperational structure as required in instant claims 7, 8, and 29. It is noted that page 20, lines 3-11, of the instant specification contains a definition of "nonoperational structure" but does not limit its meaning so as to exclude said wobble structural element. In particular the wobble determination reasonably specifically is included in said definition of "nonoperational structure" because said definition is directed to such a structure which is capable of producing a signal when the disc is read by an optical reader which clearly is a characteristic of the wobble determinable structure. Several instant claims include process steps therein which are not deemed to limit the actual disc structure and are therefore rejected hereinunder also. For example, instant claim 9-12 and 22, for example, require certain concurrent readability or confocal disposition for confocal readability which are not deemed disc characteristics per se, but rather are directed to optical reader characteristics which broadly can vary widely and, as noted, do not limit the actually claimed disc characteristics. Instant claims 30-32 also do not reasonably limit the claimed disc per se via signal variation limitations. A reflective layer is disclosed in the reference in the bridging paragraph between columns 9 and 10 which is laser readable and thus laser-proximal as required in instant claims 19, 26, 27, 49, and 50. Light transmissible coatings are disclosed in the Figures of the reference due to laser light beams shown as passing through such layers as also required in instant claim 34. See, for example, Figures 10 etc. The cover limitations as in instant claims

38, 156, and 178 is disclosed in the reference via focusing lens as item # 71 and 72 in Figure 22 of the reference and thus anticipated in that the lens cover the disc partially from the perspective of the laser beam. No limiting "cover" definitions have been found in the disclosure as filed to prevent this interpretation. These are nonintegral and attachable to the disc in the reader system of the reference as well as required in instant claims 39 and 48. Such a optical reader system also anticipates instant claims 61 and 62 as being directed to disc plus optical reader system limitations. The making of the above described optical discs of the reference, including with reflective layers, is disclosed in column 4, lines 10-14, and column 10, line 6, through column 13, line 7, as being anticipatory of instant claims 67-74.

#### **INFORMATION DISCLOSURE STATEMENT**

Enclosed is an executed PTO-1449 form, filed 6/12/01, with several citations lined through thereon for the following reasons. On page 4 of said PTO-1449 the citation to WO 00/05582 is lined through due to its being a duplicate of the same citation as on page 3. The citation on page 4 to JP 10083571 is lined through because no copy of this reference has been found in the instant application to consider.

#### **INTERESTING REFERENCE**

Yoshida et al. (P/N 4,420,828) is listed on the enclosed PTO-892 as being of interest as disclosing another optical disc system with laser reading etc.

### INFORMALITIES

The disclosure is objected to because of the following informalities.

It is noted that Figures 14 - 17 are not separately described in the specification in the section entitled "Brief Description of the Drawings" as required, albeit the Figures are similar.

It is noted that Figures 41A - 41I are not separately described in the specification in the section entitled "Brief Description of the Drawings" as required.

Appropriate correction is required.

No claim is allowed.

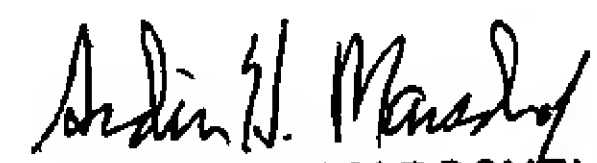
Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the Central PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The Central PTO Fax Center number is (703) 872-9306.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (703)308-3894. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703)308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instrument Examiner, Tina Plunkett, whose telephone number is (703)305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

January 2, 2004

  
ARDIN H. MARSCHEL  
PRIMARY EXAMINER